



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

September 21, 2007
Subject: **Milbridge**
Project No's BR-1006(700)X & STP-
1006(800)X
Pin No's 010067.00 & 010068.00
Amendment No. 3

Dear Sir/Ms:

Please make the following changes to the Bid Documents:

In the Bid Book, REMOVE the existing: "Special Provision, Section 203, Excavation and Embankment, Choke Stone" dated August 21, 2007, two pages total (pages 43 & 44 in the book) and REPLACE with the attached updated: "Special Provision, Section 203, Excavation and Embankment, Choke Stone" dated September 17, 2007, two pages total.

ADD the attached: "Special Provision, Section 304, Aggregate Base and Subbase Course, Dense Graded Crushed Aggregate Subbase" dated September 21, 2007, one page total.

REMOVE the existing: "Special Provision, Section 502, Structural Concrete, QC/QA Acceptance Methods" dated August 20, 2007, one page total (page 70 in the book) and REPLACE with the attached updated: "Special Provision, Section 502, Structural Concrete, QC/QA Acceptance Methods" dated September 17, 2007, one page total.

ADD the attached: "Special Provision, Section 510, Special Detours" dated September 14, 2007, five pages total.

REMOVE the existing: "Special Provision, Section 652, Maintenance of Traffic , Traffic Control" dated August 21, 2007, one page total (page 98 in the book) and REPLACE with the attached updated: "Special Provision, Section 652, Maintenance of Traffic , Traffic Control" dated September 21, 2007, one page total.

ADD the attached: "Special Provision, Section 703, Aggregates, Dense Graded Aggregate" dated September 21, 2007, one page total.



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The following questions have been received.

Question: Special provision section 643 states that two way traffic on the causeway between station 2+170 and 2+210 at all times. How is this accomplished with the required roadwork in this same area?

Response: See change earlier in this amendment replacing Special Provision Section 643 Traffic Signals.

Question: Are there any restrictions to the approach (type of materials), locations of temporary abutments, and kind of temporary bridge surface?

Response: See change earlier in this amendment adding Special Provision Section 510 Special Detour.

Question: Will the contractor be able to remove cofferdams and access structures outside of the “in water work” window dates of November 8th through April 9th.

Response: If work is done in the dry at low tide.

Question: Can route 1A be detoured for any period of time?

Response: No

Question: Is the state going to make the Maybee bridge available for this project?

Response: No

Question: After review of the permit is it a correct assumption to say that only one temporary detour (therefore only one bridge) can be worked on at a time?

Response: No

Question: The permit seems to state a maximum amount of area can be temporarily affected at a time and it seems that one detour doesn't exceed the amount but two detours will. Please verify the intent of the permit.

Response: The environmental permit looks at these two bridges as one project. The maximum impacts allowed stated in the permit are for both bridges together see the drawings in the permit.

Question: What is the material Specification for Item 304.13 Dense Graded Crushed Aggregate Subbase?

Response: See change earlier in this amendment adding Special Provision, Section 304, Aggregate Base and Subbase Course, (Dense Graded Crushed Aggregate Subbase).

Question: Shouldn't Item 502.229 and 502.249 be bid as unit priced items and not lump sum?

Response: No

Consider these changes and information prior to submitting your bid on September 26, 2007.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Bickford" followed by a flourish and the letters "FOR".

Scott Bickford

Contracts & Specifications Engineer

SPECIAL PROVISION

SECTION 203

EXCAVATION AND EMBANKMENT

(Choke Stone)

203.01 Description

The following sentence is added:

This work shall include furnishing all material and equipment, placing and compacting Choke Stone material, as specified herein, and shown on the drawings.

MATERIALS

203.02 Material Requirements.

The following paragraphs are added to the end of the section.

Choke Stone shall meet the material requirements of MDOT 703.06 Type D aggregate for Subbase and will meet the gradation requirements as provided in the table that follows:

	Choke Stone	
Sieve Designation		Percentage by Weight Passing Square Mesh Sieves
4 inch	100 mm	100
2 inch	50 mm	0-75
¾ inch	20 mm	30-35
¼	6.3 mm	> 15

CONSTRUCTION REQUIREMENTS

203.12 Construction of Earth Embankment with Moisture and Density Control

The following paragraphs are inserted:

The first lift of fill over the top of the completed earth embankment fill shall be a Choke Stone layer at least 150 mm (6 inches) thick. The Choke Stone shall meet the material and gradation requirements indicated in Section 203.02 of this special provision.

The Choke Stone shall be placed in layers not exceeding 150 mm (6 inches) in uncompacted thickness. Compaction requirements for Choke Stone will be as follows. Choke Stone Fill shall be placed in lifts and compacted using a Heavy, Self-Propelled Vibratory Drum Roller with a minimum drum weight of 67 kN (15,000 pounds) and a minimum dynamic force of 178 kN (40,000 pounds). A minimum of six (6) roller passes will be required.

203.18 Method of Measurement.

The following paragraph is inserted after the second paragraph:

When Choke Stone is placed to the lines, grades and dimension shown on the plans, the quantity measured for payment will be that shown on the plans. No further measuring or computing shall be necessary.

203.19 Basis of Payment.

The following paragraph is inserted before the tenth paragraph:

The accepted quantity of Choke Stone will be paid for at the contract price per cubic meter (cubic yard) for Choke Stone. Payment shall be full compensation for obtaining Choke Stone when required and for excavating, loading, hauling, placing, grading and compacting Choke Stone.

<u>Item</u>	<u>Description</u>	<u>Unit</u>
203.28	Choke Stone	cubic meter (Cubic Yard)

SPECIAL PROVISION
SECTION 304
AGGREGATE BASE AND SUBBASE COURSE
(Dense Graded Crushed Aggregate Subbase)

Description This work shall consist of furnishing and placing one or more courses of aggregate on a prepared surface in accordance with the specifications and in reasonably close conformance with the lines, grades, thickness and approach sections, as shown on the plans or established.

MATERIALS

Aggregates for dense graded crushed aggregate subbase shall be as specified in Section 703.06.

The maximum size of any particle shall be 75 mm [3 in] in any dimension with no two dimensions totaling more than 125 mm [5 in].

CONSTRUCTION REQUIREMENTS

The dense graded crushed aggregate subbase in the shoulders may be left low to provide sufficient width to carry a single lane of traffic on each side of the traveled way. Any degraded or otherwise contaminated material shall be removed from the project prior to placing the remaining dense graded crushed aggregate subbase. basis to minimize diverting traffic to the shoulders.

The surface of the dense graded crushed aggregate subbase shall be fine graded to provide for a uniform surface for the subsequent paving. Density of the dense graded crushed aggregate subbase shall be as required by the Standard Specifications.

A pad roller and a vibratory soil roller with a minimum roll width of 1.67 meters [66 in] shall be used to compact the dense graded crushed aggregate subbase.

Method of Measurement Dense graded crushed aggregate subbase will be measured as provided in Section 304.06.

Basis of Payment Section 304.07 is amended by addition of the following: The accepted quantity of dense graded crushed aggregate subbase will be paid for at the contract unit price per cubic meter complete in place.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
304.13 Dense Graded Crushed Aggregate Subbase	Cubic Meter [Cubic Yard]

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.219	Structural Concrete Abut. & Ret. Walls	\$475	A
A	502.229	Struct. Concrete Abut. & Ret. Walls (UW)	\$475	A
A	502.239	Structural Concrete Piers	\$475	A
A	502.249	Structural Concrete Piers UW	\$400	B
LP	502.25	Struct. Conc. Superstructure Slab (Class LP)	\$475	A
A	502.31	Structural Concrete Approach Slab		C
LP	502.34	Permanent Concrete Transition Barrier	\$475	A

P values listed above reflect the price per cubic meter (yd³) for all pay adjustment purposes.

**SPECIAL PROVISION
SECTION 510
SPECIAL DETOURS**

510.01 Description This work shall consist of the design, construction, maintenance in good condition, and removal of temporary structures and approaches required for the satisfactory maintenance of vehicular and pedestrian traffic.

Easements or right-of-way for the Special Detour will be furnished by the Department and will be shown on the contract plans. The Contractor may obtain additional easements at no cost to the Department.

510.02 Materials Materials used for the Special Detour structure and approaches shall conform to the detailed plans and specifications submitted by the Contractor.

510.03 Vehicular and Pedestrian Traffic Not Separated The Special Detour shall be located as close as practicable to the new work or as shown on the plans.

The Special Detour, including the temporary structure and approaches, shall be designed and sealed by a Professional Engineer, licensed in accordance with the laws of the State of Maine. The Contractor shall submit the design computations and detailed plans of the temporary structure and approaches that will serve as the temporary detour to the Resident prior to beginning construction of the Special Detour.

The Department's review of, and comment on, the design computations and detailed plans of the temporary structure may be limited to basic Contract requirements relating to design compliance and Material type(s). Such review and comment shall not result in any liability upon the Department and it shall not relieve the Contractor of any of its contractual responsibilities with respect to the temporary structure, including: Its indemnification obligations; its responsibility for the overall correctness of the design, including the contractually required Engineering design methodology, mathematical computations and plans; shop fits; and field connections.

The Special Detour shall not be opened to traffic until the Contractor's Professional Engineer inspects the temporary structure and provides the Department with a signed and sealed document certifying that the structure was built in accordance with the previously submitted sealed plans and design details of the structure and approaches.

510.031 Structure Design Temporary structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002, or the current edition of AASHTO LRFD Bridge Design Specifications, except as noted herein, to meet live load requirements of HS20, for ASD and LFD, or HL-93, for LRFD designs.

a. Allowable Working Stresses At the discretion of the Contractor's Professional Engineer, allowable working stresses may be increased by up to 25% for materials that are judged to be in sound structural condition.

b. Deflections Primary structural members shall be designed so that deflection due to live load plus impact shall not exceed 1/300 of the span.

c. Fatigue Stresses Fatigue stresses for steel need not be considered if the steel is judged by the Contractor's Professional Engineer to be in sound structural condition.

d. Bridge Railing Loads Bridge railing shall be designed in accordance with AASHTO Standard Specifications, 17th Edition, 2002 or the current edition of AASHTO LRFD Bridge Specifications, except that the Standard Specification design load "P" specified as 10 kips may be decreased to 5 kips. However, allowable design stresses for material used in bridge rails and posts shall not be increased above those allowed by AASHTO Standard Specifications.

e. Waterway Opening The minimum waterway opening of the temporary structure shall be designed to pass the Design Discharge indicated in the Contract Specifications, without any overtopping of the roadway.

f. Foundations Temporary foundations, embankment foundations and earth retaining structures shall be designed in accordance with the AASHTO Standard Specifications, 17th Edition, or the current edition of the AASHTO LRFD Bridge Design Specifications and AASHTO LRFD Bridge Construction Specifications, except as noted herein.

The applied loads on foundations shall consider both dead and live loads and all other applicable loads and forces. The Contractor is responsible for choosing an applicable factor of safety for foundations on soil and rock and an appropriate design load group. The factor of safety and maximum applied load, or LRFD factored applied loads and factored geotechnical resistances, used for each foundation design shall be clearly stated on the submitted calculations.

510.032 Geometric and Approach Design The geometric design of the Special Detour, except as otherwise shown on the plans or as noted herein, shall be designed in accordance with the current AASHTO Specification "A Policy on Geometric Design of Highways and Streets".

a. Horizontal Alignment Horizontal curve radius shall not be less than 200 feet at the centerline of roadway, except as otherwise shown on the Plans.

Roadway width as indicated in the Contract shall be the minimum clear travel width between faces of bridge curbs, bridge rails or approach rails, whichever is less. The approach roadway shall have 2 feet wide shoulders, minimum, to the roadway

berms, where guardrail is not required, in addition to the roadway width indicated in the Contract.

The roadway width shall be increased on curved portions of the Special Detour to account for the off tracking characteristics of a WB-62 vehicle in accordance with Exhibit 3-49, Case I or Case III, of the AASHTO Standard Specifications.

b. Vertical Alignment Grades shall not exceed 10% and any change in grade shall accommodate all legal highway vehicle components or attached loads.

c. Approach Road Guardrail The Special Detour approaches shall have guide rail on both sides secured to the bridge rails of the temporary bridges. If temporary concrete barrier is proposed, the approach roadway section must build out the roadway berms at least 250mm beyond outside of the installed barriers. The barriers shall be securely linked to prohibit individual displacement under vehicular collision loads.

The termination of all rail systems shall be in accordance with the current AASHTO Roadside Design Guide.

d. Approach embankments Approach embankments shall be constructed from suitable rock material, as shown in the Contractor's plans submitted to the Resident. At a minimum, the top 300mm of the temporary roadway shall be clean gravel. All temporary causeways, roadways, and fills must be constructed of rock on durable mats, such as crane mats, and all materials must be completely removed to complete the work. The embankment material shall have sufficient strength under the placement method specified in the Contractor's plans to maintain stability throughout the duration of the Special Detour.

e. Approach Road Base Drainage The approach road base structure shall consist of a 1 foot thick layer, minimum, of aggregate subbase course gravel, Type D or E. This layer shall be designed to support legal loads during the use of the detour.

f. Approach Road Surface The approach road surface, including the shoulders, shall be paved with a 3 inch, minimum.

g. Design Speed The design speed of the Special Detour shall be not less than the construction area posted speed limit, or the advisory speed limit, as applicable, unless otherwise indicated in the Contract.

510.06 Special Detour Construction The Special Detour, including temporary structures and approaches, shall be constructed in accordance with the plans submitted by the Contractor. Barricades, warning signs, lights and other traffic control devices shall be provided in accordance with the Contract and the approved Traffic Control Plan.

The temporary structure's deck and floor members shall be fastened or anchored so that all contact surfaces with adjacent supporting members bear continuously. If timber plank decking is used, it shall be secured into timber nailer strips with screw-type nails, or securely fastened by an alternate method that will prevent the decking from loosening. Immediate corrective action shall be taken by the Contractor to remedy any condition in the structure that results in the decking becoming loose, when subject to traffic loads.

The approach road surface, including shoulders, whether paved or graveled, shall be maintained in a compacted and smooth condition. The temporary structure travel surface shall be constructed and maintained in an acceptably smooth condition, as determined by the Resident. Immediate corrective action shall be taken by the Contractor to remedy objectionable roughness of the Special Detour riding surface.

Provisions shall be made for a skid resistant wearing surface throughout the period of time the temporary structure is open to public travel for vehicular and pedestrian traffic. A steel grid floor may be used for vehicular traffic if installed in accordance with the design plans and these specifications.

Erosion control shall be accomplished in accordance with Section 656 - Temporary Soil Erosion and Water Pollution Control.

When the Project has been opened to traffic, the temporary structure and approaches shall be completely removed to the original ground surfaces. The provisions of Section 104 - General Rights and Responsibilities, shall apply.

510.07 Contractor's Responsibility The provisions of Section 104 - General Rights and Responsibilities, Section 105 - General Scope of Work, Section 107 - Time, and Section 652 - Maintenance of Traffic, shall apply to work under this section. The Contractor shall be responsible for removal of snow from areas provided for vehicular traffic in accordance with Section 104 - General Rights and Responsibilities. In addition to normal maintenance, should any part, or all, of the Special Detour be damaged or destroyed by high water, or any other cause, prior to opening the Project to traffic, it shall be repaired or replaced by the Contractor without additional compensation.

510.08 Method of Measurement Special Detours will be paid by the lump sum.

510.09 Basis of Payment The accepted Special Detour will be paid for at the contract lump sum price which price shall be full compensation for the respective items, as called for in the Contract, including design, construction, maintenance, complete removal, rehabilitation and permanent stabilization, including loaming, seeding and mulching. All gravel or borrow material and excavation needed to accommodate changes in elevation between temporary structures and existing roadways shall be incidental to this item. The lump sum price shall also include the cost of furnishing and revising, as necessary, all plans, computations and certifications, as called for in the Contract.

Traffic control devices, temporary erosion control, pavement, and dust control will be paid in accordance with the applicable Contract items.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
510.10 Special Detour, ___ foot Roadway Width Vehicular and Pedestrian Traffic Not Separated	Lump Sum
510.11 Special Detour, Pedestrian Traffic Only	Lump Sum
510.12 Special Detour, ___ foot Roadway Width Vehicular and Pedestrian Traffic Separated	Lump Sum

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
(Traffic Control)

652.7 Method of Measurement This entire Subsection is revised to read:

Traffic Control Supervisor, installation and maintenance of traffic control devices, will be measured as one lump sum for all work authorized and performed. The traffic control plan shall be developed in accordance with Part VI of the M.U.T.C.D.

Basis of Payment

Traffic Control will be paid for at the contract lump sum price. Payment will be full compensation for the Traffic Control Supervisor, for signs, channelization devices, two (one pair of) temporary traffic signals, and maintenance of all items used in the traffic control plan for the project.

Maintenance includes: replacing devices and signs damaged, lost, or stolen, and cleaning and moving as many times as necessary throughout the life of the contract.

Flaggers shall be paid for under Item 652.38 on an hourly basis with no additional payment for overtime. The lump sum price shall be full compensation for hiring, transporting, equipping, supervising, and paying flaggers and for all overhead incidentals necessary to complete the work.

The Lump Sum will be paid as follows: 33% once the final Traffic Control is approved and the initial controls are in place and certified by the Contractor's Traffic Control Supervisor. The remaining 67% will be paid as work progresses.

Failure by the contractor to follow the Contract 652 Special Provision and/or The Manual of Uniform Traffic Control Devices (MUTCD) will result in a reduction in the payment, computed by reducing The Lump Sum Total by 5% per occurrence. The Department reserves the right to suspend the work and request a meeting to discuss violations and remedies.

There will be no payment for work done under this item after the expiration of contract time.

Payment will be made under:

Pay Item
652.39 Work Zone Traffic Control

Pay Unit
Lump Sum

SPECIAL PROVISION
SECTION 703
AGGREGATES
(DENSE GRADED AGGREGATE)

703.06 Aggregates for Base and Subbase. Part “b” of this subsection is amended by the addition of the following:

Dense graded crushed aggregate subbase shall be manufactured from ledge, boulders, or natural aggregates from the project site. When tested by the Los Angeles wear test, the percent loss shall not exceed 25. The material will be tested before being used and retested at intervals of approximately 25%, 50%, and 75% completion of the course.

At least 50 percent by weight of the material coarser than the No. 4 sieve shall have at least one fractured face.

The material shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
90 mm (3 ½ inches)	100
75 mm (3 inches)	90-100
50 mm (2 inches)	75-100
25 mm (1 inch)	50-80
13 mm (½ inch)	30-60
No. 4	15-40
No. 200	0-6

If Dense graded aggregate is used, the top two inches in the subbase shall meet the requirements of 411.10 Untreated Aggregate Surface Course unless otherwise authorized by the Resident. Payment to be considered incidental to item 304.10